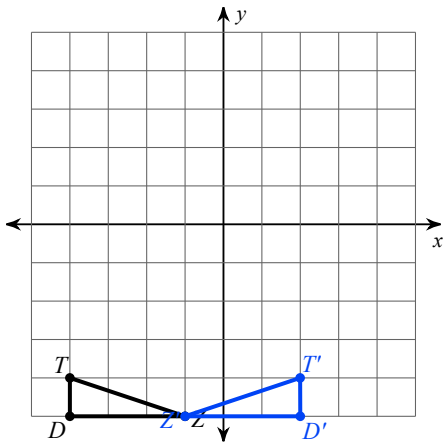


# Transformations Practice

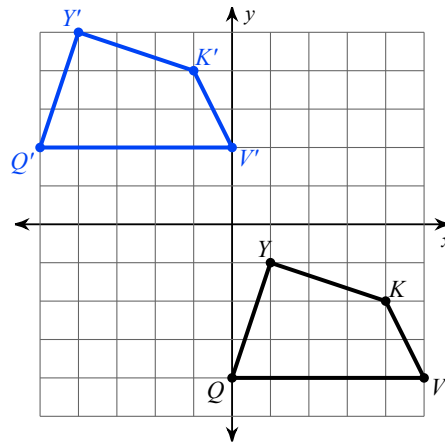
Date \_\_\_\_\_ Period \_\_\_\_\_

Write a rule to describe each transformation.

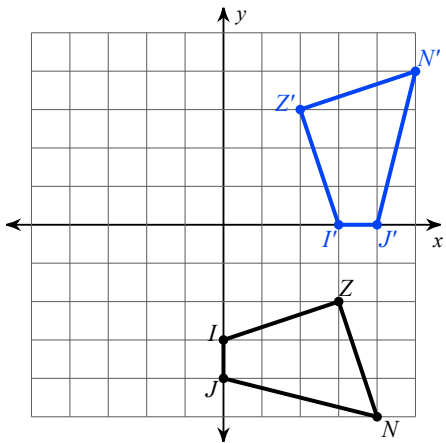
1)



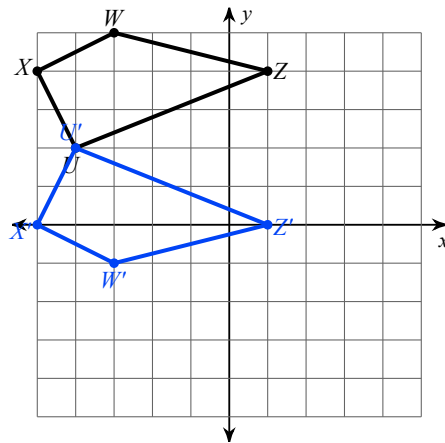
2)



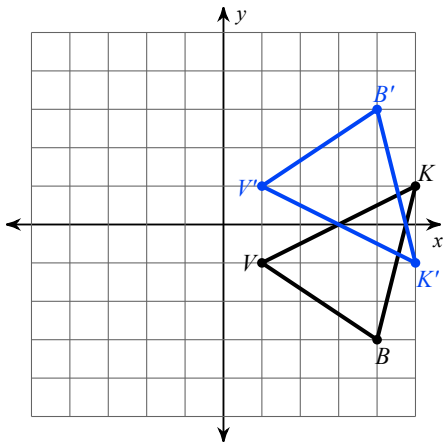
3)



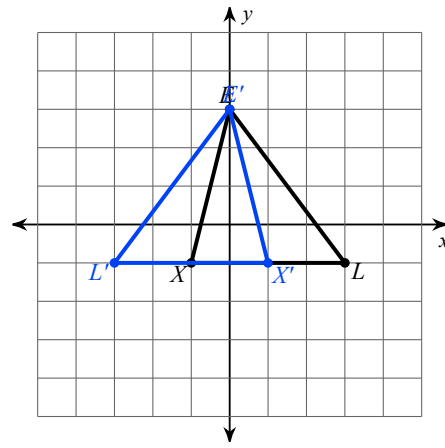
4)



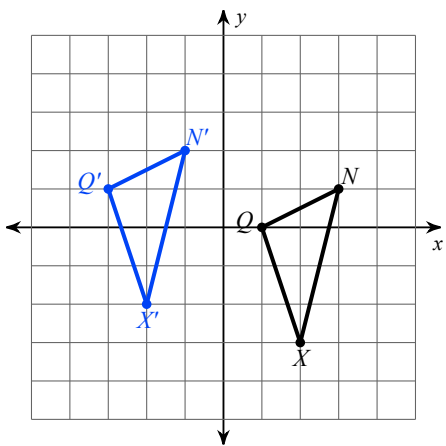
5)



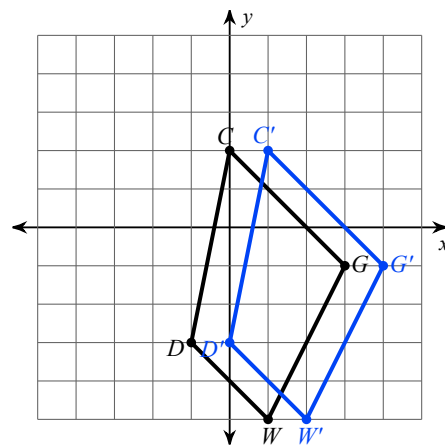
6)



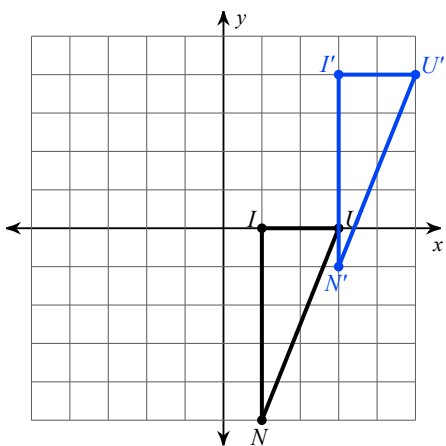
7)



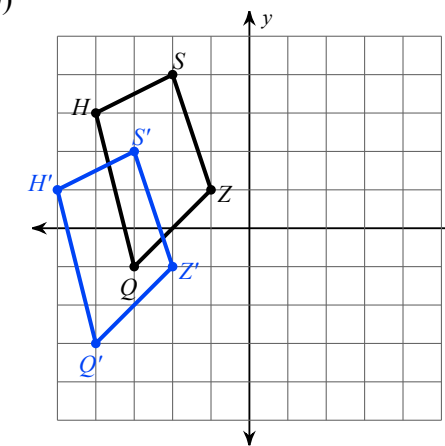
8)



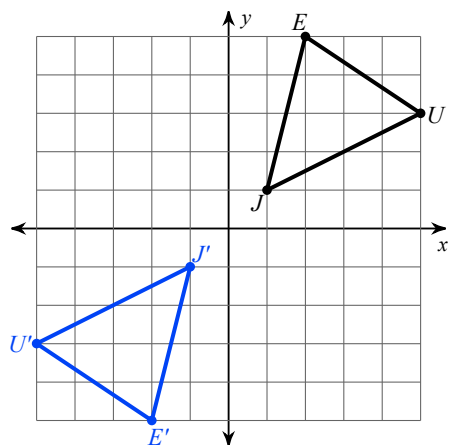
9)



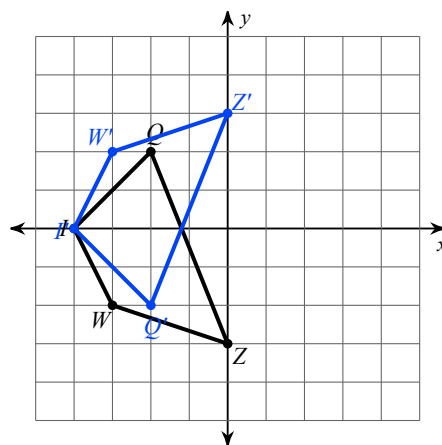
10)



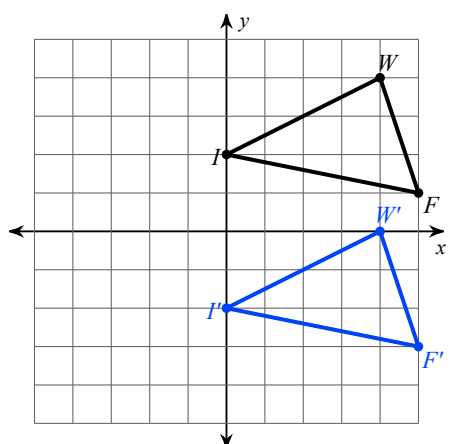
11)



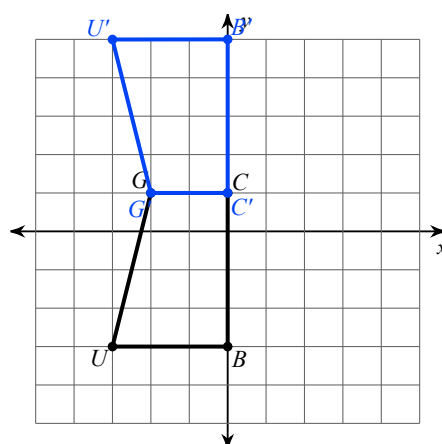
12)



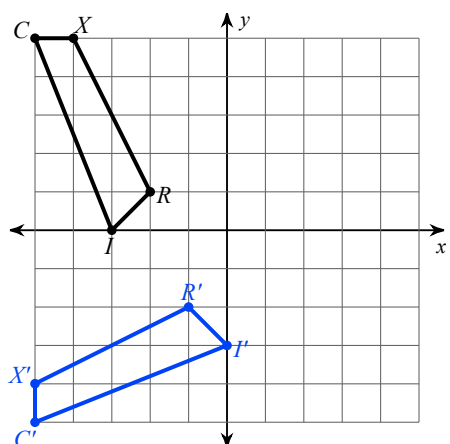
13)



14)

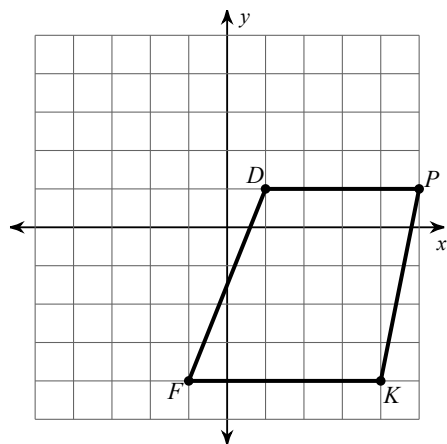


15)

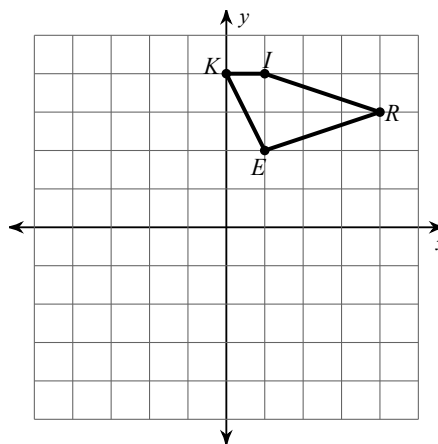


**Graph the image of the figure using the transformation given.**

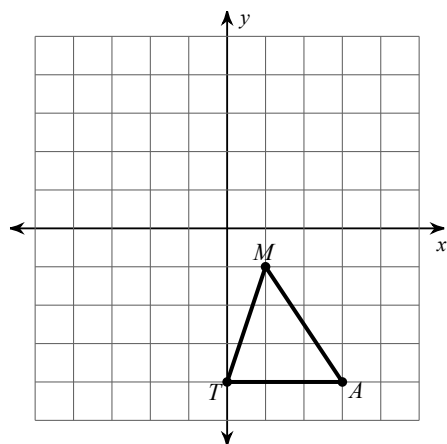
16) reflection across  $x = 2$



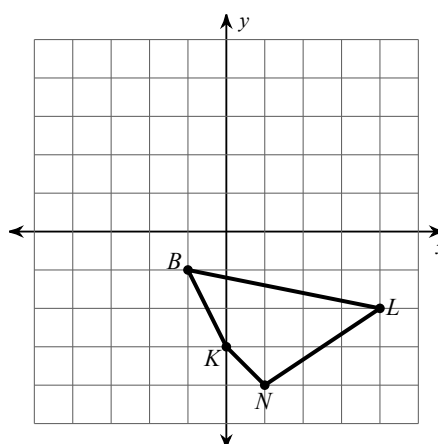
17) translation:  $(x, y) \rightarrow (x + 1, y - 3)$



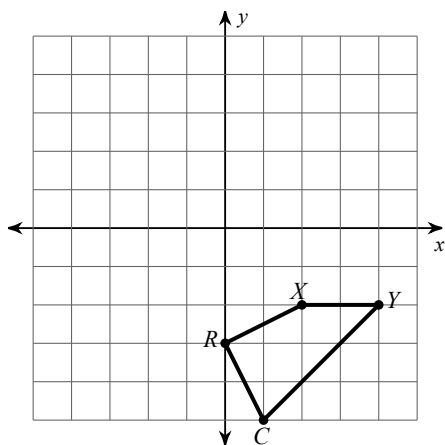
18) rotation  $180^\circ$  about the origin



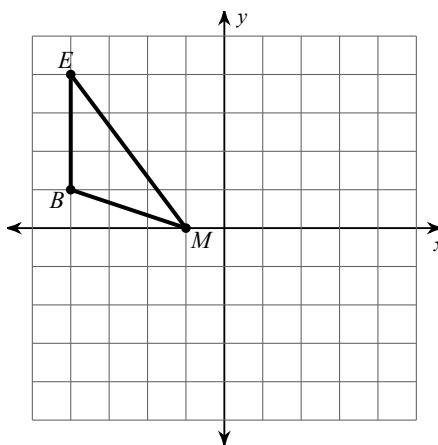
19) translation:  $(x, y) \rightarrow (x - 4, y - 1)$



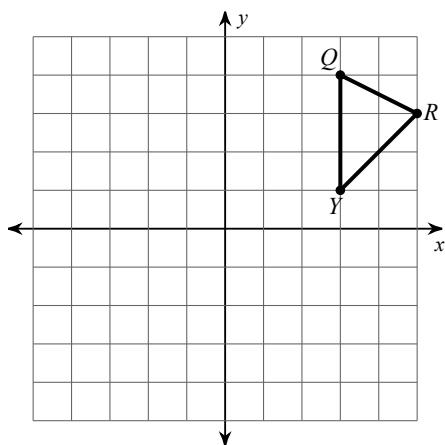
20) reflection across  $y = -1$



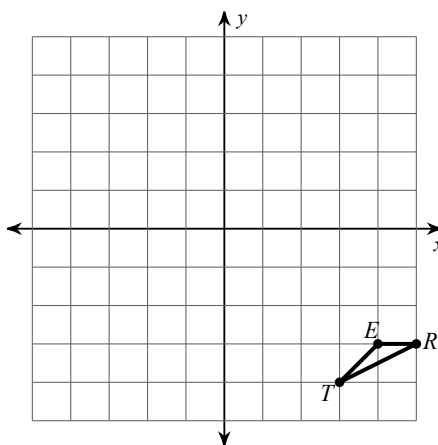
21) translation:  $(x, y) \rightarrow (x + 5, y)$



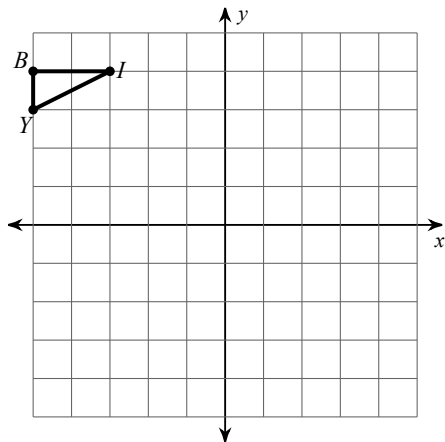
22) rotation  $90^\circ$  counterclockwise about the origin



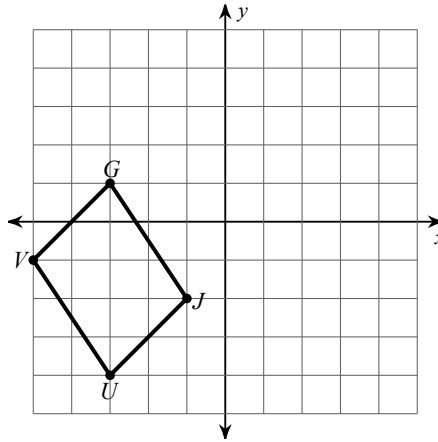
23) rotation  $90^\circ$  counterclockwise about the origin



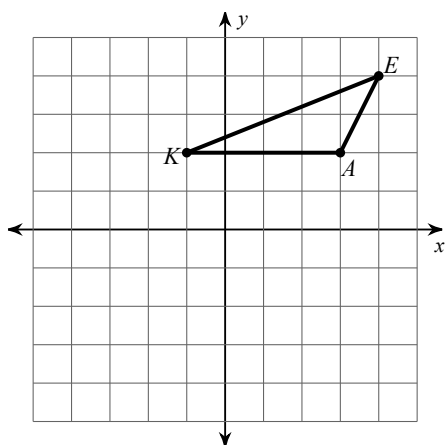
24) reflection across  $x = -3$



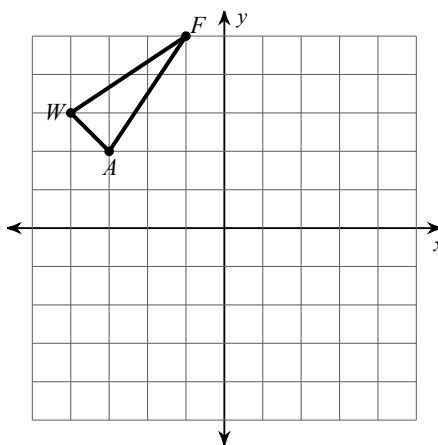
25) reflection across the x-axis



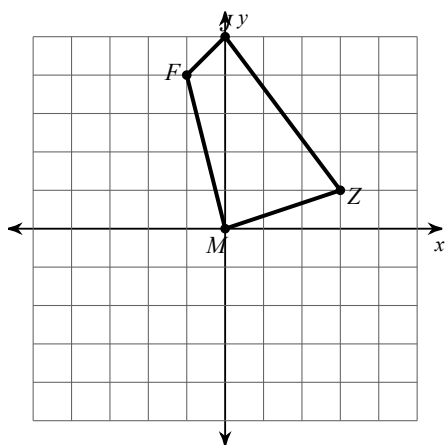
26) rotation  $90^\circ$  counterclockwise about the origin



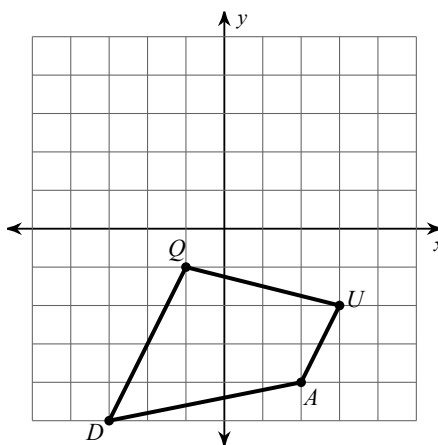
27) reflection across  $x = -2$



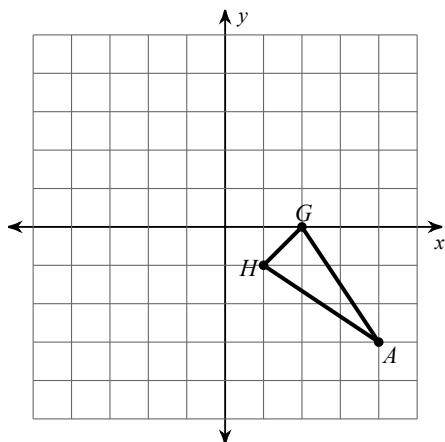
28) reflection across  $y = 1$



29) reflection across  $y = -1$

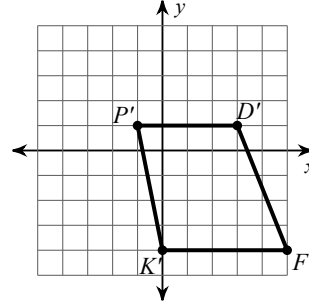


30) reflection across  $x = 2$

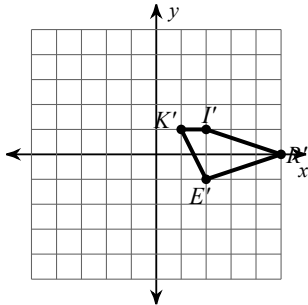


# Answers to Transformations Practice (ID: 1)

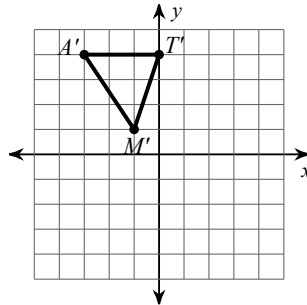
- 1) reflection across  $x = -1$
- 2) translation:  $(x, y) \rightarrow (x - 5, y + 6)$
- 3) rotation  $90^\circ$  counterclockwise about the origin
- 4) reflection across  $y = 2$
- 5) reflection across the x-axis
- 6) reflection across the y-axis
- 7) translation:  $(x, y) \rightarrow (x - 4, y + 1)$
- 8) translation:  $(x, y) \rightarrow (x + 1, y)$
- 9) translation:  $(x, y) \rightarrow (x + 2, y + 4)$
- 10) translation:  $(x, y) \rightarrow (x - 1, y - 2)$
- 11) rotation  $180^\circ$  about the origin
- 12) reflection across the x-axis
- 13) translation:  $(x, y) \rightarrow (x, y - 4)$
- 14) reflection across  $y = 1$
- 15) rotation  $90^\circ$  counterclockwise about the origin
- 16)



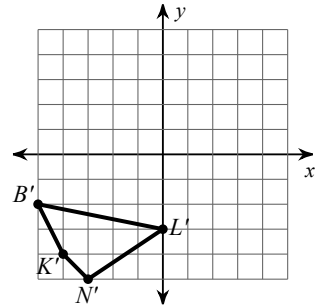
17)



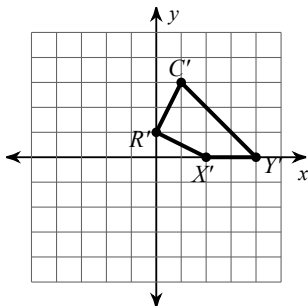
18)



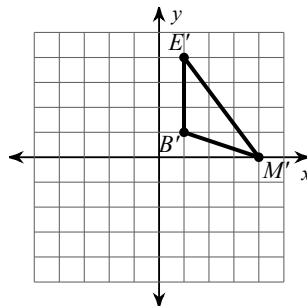
19)



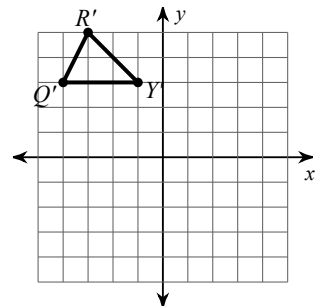
20)



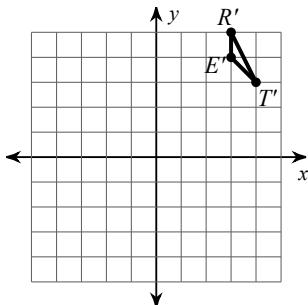
21)



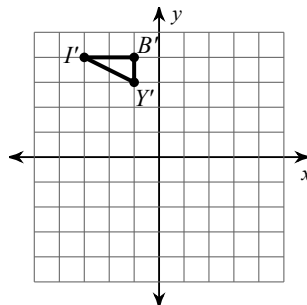
22)



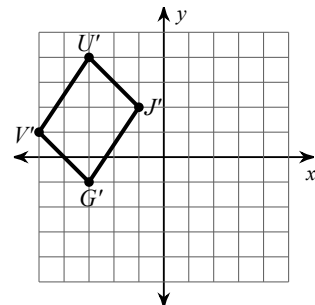
23)



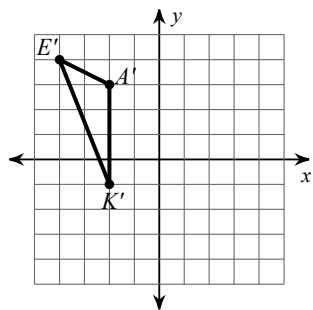
24)



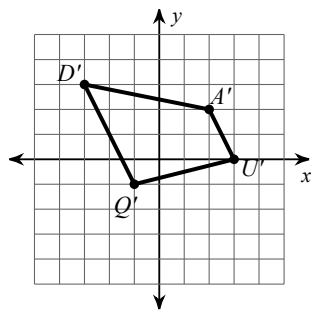
25)



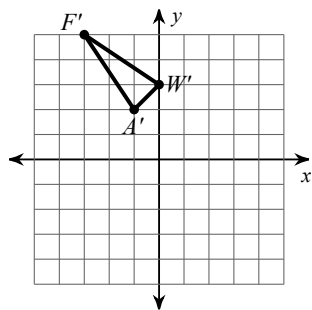
26)



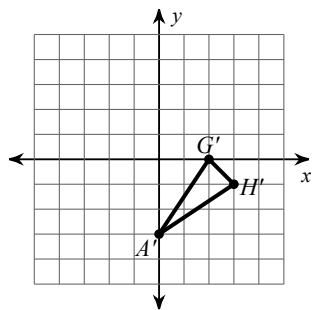
29)



27)



30)



28)

